REMARKS

In a telephone conversation on February 13, 2008, the Examiner agreed with applicant that the claims now active in this case are Claims 1-11 and Claims 13-17.

It is noted that (1) Claims 1, 3, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by newly-cited Rosen et al. (4,998,932), (2) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen et al. in view of Dann et al. (6,223,085) and (3) Claims 2, 4, 7, 11 and 13-17 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

The catheter structure taught in newly-cited Rosen et al. (4,998,932), like the catheter structure taught in previously-cited Kasevich et al. (5.057,106), is directed for use in a microwave balloon angioplasty procedure that is effective in heating arterial plaque. As disclosed in Rosen et al. (Column 2, lines 30-69), conventionally, microwave power, which is radiated to the plaque, is supplied to an antenna situated within the balloon at the distal end of the catheter by a coaxial transmission line that extends from the proximal end of the catheter. This causes up to 50% of the microwave power to be lost in undesirable heating of the transmission line itself, rather than ever reaching the antenna. The Rosen et al. solution is to position microwave energy generator chip 28 (Figs. 2, 3 and 4a) within the balloon at the distal end of the catheter. Then microwave power may be supplied to antenna 87 (Figs. 4b and 5) by transmission line 85 comprising conductors 82 and 84. As shown in Figs. 4a and 4b and disclosed in Column 5, line 57 to Column 6, lime 2 and Column 6, lines 17-27, if antenna 87 is printed on the exterior of balloon membrane 68, the conductors 82 and 84 of transmission line 85 must pass from the interior to the exterior of balloon membrane 68 through vias (conductive through paths).

Independent Claim 1 has been currently amended to now include a microwave feedline for forwarding microwave energy to the antenna, wherein both the microwave feedline and the antenna are located entirely outside of the balloon. This structurally differs from Rosen et al., where microwave energy generator chip 28 is within the balloon and the feedline for forwarding microwave energy to antenna 87 consists of conductors 82 and 84 of transmission line 85 which must pass from the interior to the exterior of

balloon membrane 68 through vias. It also structurally differs from the prior art to both Rosen et al., and applicant, where both the microwave feedline and the antenna are located inside of the balloon.

The above-stated structural difference between Rosen et al. and independent Claim 1 is submitted to be of patentable significance.

First, the Rosen et al. invention depends upon microwave energy generator chip 28 being within the balloon at the distal end of their catheter, so that teaches away from any suggestion of a microwave feedline for forwarding microwave energy to the antenna, wherein both the microwave feedline and the antenna are located entirely-outside of the balloon.

Second, applicant's specification makes it clear that a relatively large amount of microwave energy may be radiated by applicant's exterior antenna into a deep-seated tumor (e.g., a prostate tumor) sufficient to heat the diseased tissue to a temperature that produces a "biological stent" therein. However, the catheter structure taught by Rosen et al., which is for use in providing heat for softening atherosclerotic plaque in a percutaneous transluminal balloon catheter angioplasty process, cannot do this. As brought out in previously-cited Kasevich et al. and argued by applicant in his now withdrawn appeal brief, in a balloon catheter angioplasty process it is desired to deliver microwave energy to a specific layer of plaque without heating wall tissue during pressure application by the balloon. This means that a relatively small microwave energy generator chip 28 be designed to generate a relatively small amount of microwave energy to be radiated by antenna 87 to effect the softening of the plaque without the possibility of damage to an arterial wall.

For both the above first and second reasons, currently-amended Claim 1 is submitted to be allowable.

Each of Claims 2-8, dependent on amended independent Claim 1, is submitted to be allowable for at least the same reasons as its amended parent Claim 1.

Independent Claim 9, which is directed to a system suitable for use in heat treating diseased prostate tissue of a patient, has been currently amended to now include a power source and means including a feedline in which both the power source and the feedline are located entirely outside of said balloon_for supplying a given amount of power within the given frequency band to the external directional antenna, thereby to irradiate the

diseased tissue and thereby effect the heating to a given therapeutic temperature.

Currently-amended independent Claim 9 is submitted to be allowable for at least the same reasons as currently-amended Claim 1.

Each of Claims 10, 11 and 13-17, dependent on amended independent Claim 9, is submitted to be allowable for at least the same reasons as its amended parent Claim 9.

It is believed that this application is now in condition for allowance and such action is solicited.

Respectfully submitted,

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